AF 13654

Docket No.: 50103-352 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of	:	Customer Number: 20277
Turguy GOKER, et al.	:	Confirmation Number: 5600
Serial No.: 09/911,740	:	Group Art Unit: 3654
Filed: July 25, 2001	:	Examiner: Minh Chau Pham

For: METHOD AND APPARATUS OF MAINTAINING TENSION IN A TAPE

TRANSMITTAL OF SUPPLEMENTAL APPEAL BRIEF

Mail Stop Notice of Appeal
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith in triplicate is Appellant(s) Appeal Brief in support of the Notice of Appeal filed . Please note the Appeal Brief fee has already been submitted with the originally filed Appeal Brief on December 22, 2003.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including

extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT, WILL & EMERY

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SUPPLEMENTAL APPEAL BRIEF

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Supplemental Appeal Brief is submitted in support of the Notice of Appeal filed August 21, 2003. An Appeal Brief was originally filed on December 22, 2003. Since the filing of that Appeal Brief, however, the Examiners have reopened prosecution by Office Action dated February 10, 2004. Appellants hereby request reinstatement of the Appeal and file a Supplemental Appeal Brief, as follows.

I. REAL PARTY IN INTEREST

The Real Party in Interest is SEAGATE REMOVABLE STORAGE SOLUTIONS LLC, assignee of the Application. This entity has since become Certance LLC.

II. RELATED APPEALS AND INTERFERENCES

The Real Party in Interest is SEAGATE REMOVABLE STORAGE SOLUTIONS, LLC, assignee of the Application. This entity has since become Certance LLC.

III. STATUS OF CLAIMS

Appellants are unaware of any related appeals or interferences.

IV. STATUS OF AMENDMENTS

Claims 1-9 and 11-20 are pending in this Application, all having been multiply rejected. Claim 10 has been cancelled.

V. SUMMARY OF INVENTION

The present invention addresses and solves problems associated with the unloading of tape from a take-up reel to a single reel tape cartridge in a tape drive mechanism, and more particularly to preventing the detachment of the end of the tape from a hub filler during the unloading operation. (page 5 of the written description of the Specification, last partial paragraph and first paragraph of page 6). A particular problem addressed includes maintaining of tension in the tape to prevent the detachment of the end of the tape. The unloading operation involves unloading of tape from the take-up reel in the tape drive to the single reel tape cartridge, which can then be removed. In conventional tape drives, during the unloading operation, the motor coupled to the single reel of the tape cartridge and the guide

arm motor must act cooperatively in order to maintain adequate tension in the tape that is attached to the hub filler. If the tape is not under adequate tension, there is a risk that the end of the tape will detach from the hub filler prior to the end of the tape being retracted into the cartridge. The motor coupled to the tape cartridge and the guide arm motor are separately calibrated. Over time, there is a possibility that one of the motors will run faster or slower than intended or originally calibrated. When this occurs, the tension in the tape may be decreased and result in the detachment of the end of the tape from the hub filler. If the end of the tape is inadvertently detached in this manner, the tape will become loose and unguided in the tape drive mechanism. One problem with such a detachment is that the tape drive mechanism may be "jammed" by the loose unguided tape. For instance, the loose tape may be caught between the hub filler and the guide rail. This may prevent movement of the hub filler, while torque is being applied to the hub filler by the guide arm. Consequently, an undue amount of pressure may be applied to the parts of the tape drive mechanism, permanently damaging the device. (See first full paragraph on page 3, continuing to page 4 of the written description.)

The Appellants address and solve such problems using a cartridge reel motor 412 coupled to a tape cartridge 400 to retract tape 406 that is attached to a hub filler 402. The retracting tape 406 drags the hub filler 402 and guide arm 416 towards the cartridge 400. The frictional resistance of the hub filler (page 8, last full paragraph), the frictional resistance of the guide arm (page 9, first full paragraph), the frictional resistance of the guide arm motor (page 9, third full paragraph), and magnetic resistance of the guide arm motor (page 9, second full paragraph) maintain adequate tension in the tape. Additional tension may be provided by stimulated electrical induction within the guide arm motor (page 9, last full paragraph). By maintaining the tension, it is ensured that the leader pin will not be inadvertently detached from the hub filler during transport along the guide rail (see page 8, second full paragraph of the written specification). This tension is maintained by the drag force the hub filler

exerts on the tape as the tape retracts into the cartridge. As described at page 10 of the written specification, with the present invention, the tape 406 is not transported back to the single reel 417 by the hub filler 402, with the cartridge reel motor 412 operating only to take up slack, as in the prior art. Rather, it is the cartridge reel motor 412 that provides the torque to pull the tape 406 into the single reel 417. Tension in the tape 406 is controlled through the guide arm motor, guide arm and hub filler combination.

VI. ISSUES

A. The Rejections:

1. Claims 1-2 were rejected under 35 U.S.C. § 102 as being disputed by Ohshita (EP 0467143).

2. Claims 3-9 and 11-20 were rejected under 35 U.S.C. § 103(a) for obviousness predicated upon Ohshita in view of Rueger (US Patent 4,399, 936).

B. The Issues

The issues which arise in this Appeal and require resolution by the Honorable Board of Patent Appeals and Interferences (the "Board") are:

1. Whether claims 1-2 are unpatentable under 35 U.S.C. § 102(b) for lack of novelty predicated upon Ohshita.

2. Whether claims 3-9 and 11-20 are unpatentable under 35 U.S.C. § 103(a) for obviousness predicated upon Ohshita and Rueger.

VII. GROUPING OF CLAIMS

The Appealed claims do not stand or fall together as a single group. Claims 1 and 2 stand or fall together as a group. The patentability of each of the claims 3-9 and 11-20 are separately advocated.

VIII. THE ARGUMENT

The rejection of claims 1-2 under U.S.C. §102(b) for lack of novelty predicated upon Ohshita.

The Examiner's Burden

The Examiner is charged with the initial burden of establishing a prima facie basis to deny patentability to a claimed invention under any statutory provision. In re Main, 104 F.3d. 1339, 41 USPQ 2d 1451 (Fed. Cir. 1997). Lack of novelty under 35 U.S.C. §102 requires the identical disclosure in a single reference of each element of a claimed invention such as to establish that the identically claimed invention is in the public domain and that such existence would have been recognized by one having ordinary skill in the art. Crown Operations Ltd. v. Solutia, Inc., 62 USPQ 2d 1917; In re Spada, 911F.2d., 705, 708, 15 USPQ 2d 1655, 1657 (Fed. Cir. 1990); Diversitech Corp. v. Century Steps, Inc., 850F.2d 675, 678, 7 USPQ 2d 1315, 1317 (Fed. Cir. 1988).

The Claimed Invention

The invention defined in independent claim 1 is directed to a tape drive mechanism comprising a hub filler coupled to a guide rail and means for preventing detachment of an end of tape from the hub filler during a tape unloading operation. The specification describes structure that provides means for preventing detachment, including a guide arm and a guide arm motor, which are arranged to provide drag on a tape being unloaded from the tape drive mechanism. The Examiner is unable to identify

wherein Ohshita discloses a means for preventing detachment identically corresponding to that claimed, thereby placing the claimed invention into knowing possession of the public.

The Examiner's Position

The language of claim 1 is cast in means-plus-function format and must therefore be interpreted within the guidelines of 35 U.S.C. §112, 6th paragraph, as required by that statute and interpreted by the Court of Appeals for the Federal Circuit. The Examiner, however, has a unique view, one unsupported by current case law, as to how such a claim is to be interpreted. Particularly, the Examiner states that the Examiner is required to compare the structures of the allegedly anticipating reference with the structure disclosed in the specification to consider whether there is a specified functional equivalent, but not "a structural equivalent" as Applicants may wish to believe. The Examiner believed that Applicants were misinterpreting the 35 U.S.C. §112, 6th paragraph. From this, the Examiner stated that Applicants' arguments are not commensurate with the scope of the claim. This statement by the Examiner in the Final Office Action clearly shows that the Examiner has ignored: 1) the clear statutory language of 35 U.S.C. §112, 6th paragraph; 2) the requirements set forth by the Federal Circuit in In re Donaldson; and 3) the Manual of Patent Examining Procedure (MPEP). The Examiner has instead provided a new standard for interpreting means-plus-function claims, in direct contravention to the standard required by the authorities above.

Examination of claims under 35 U.S.C. §112, paragraph 6

The sixth paragraph of 35 U.S.C. §112 states that an element in a claim for a combination may be expressed as a means or a step for performing a specified function without the recital of structure, material, or acts in support thereof. Such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. The Federal Circuit has held that the Patent Office is not exempt from the rigors of paragraph 6 of §112, stating that "paragraph six

applies regardless of the context in which the interpretation of means-plus-function arises." In re Donaldson, 16 F.3d 1189, 1195, 29 USPQ 2d 1845, 1849 (Fed. Cir. 1994) see also, In re Morris, 44 USPQ 2d 1023 (Fed. Cir. 1998) (following Donaldson). The Patent Office, recognizing this directive from the Federal Circuit, directed its Examiners to follow Donaldson. As stated in MPEP 2182, the application of a prior art reference to a means plus function limitation requires that the prior art element perform the identical function specified in the claim. If a prior art reference teaches identity of function to that specified in the claim, then under Donaldson an Examiner carries the initial burden of proof to show that the prior art structure is the same as or equivalent to the structure, material or acts described in the specification that should have been identified as corresponding to the claimed means function. The broadest reasonable interpretation that an Examiner may give means-plus-function language is that statutorily mandated in paragraph six. Accordingly, the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination. Donaldson, 16 F.3d at 1194-95, 29 USPQ 2d at 1850.

In this case, however, the Examiner has totally and explicitly disregarded the structure disclosed in Appellants' specification, stating that the test is whether there is a specified functional equivalent when interpreting claims under 35 U.S.C. §112, 6th paragraph. This is in direct contrast to the statute, as interpreted by the Federal Circuit, Donaldson and in contradistinction to the examination guidelines set forth by the Patent and Trademark Office in the MPEP. Each of those authorities states that the prior art structure must be the same as or equivalent to the structure described in the specification which has been identified as corresponding to the claimed means plus function. Hence, it is the structure that must be equivalent, and not the function that must be equivalent. In fact, there must be identity of function.

The Examiner's basis for rejecting claim 1, and those claims dependent therefrom, is legally

flawed ab initio.

The Ohshita reference

In making the rejection, the Examiner referred to column 4, lines 32-40 of Ohshita, reproduced below:

> When unthreading the magnetic tape 2, the threading motor 21 rotates clockwise. Then the pin 8 travels back along the guide groove 5b while pulling the leader block 3 to insert the leader block 3 into the cartridge 1. During insertion, the leader block 3 has to be pushed against the opposing force of the tone provided in the cartridge 1, causing a shock to both cartridge 1 and the threading arm.

In this description, the Examiner asserted that the guide arm and the guide arm motor are arranged to provide drag on the tape unloaded from the tape drive mechanism. However, it is quite clear from the description that, in fact, the exact opposite happens. The motor 21, seen in Figure 3, rotates clockwise. This has the action of pulling the leader block 3, to thereby insert the leader block 3 into the cartridge. The guide arm motor is therefore applying force in the same direction as the travel direction of the tape. This is directly in contrast to the present invention, in which, as seen in Figure 4, the force of the motor in the present invention is in the direction opposite to that of the travel direction of the tape, as indicated by the force on the tape. The guide arm and the guide arm motor are not dragged in Ohshita, but rather are configured to provide the motive force for movement of the leader block. Thus, the structure of Ohshita is not equivalent to that of the present invention so that claim 1 cannot be considered anticipated under 35 U.S.C. § 102 when properly interpreted under the strictures of 35 U.S.C. § 112, sixth paragraph.

Claim 2 provides more details regarding the guide arm and the guide arm motor and being dragged by the tape. In particular, claim 2 requires that the means for preventing detachment comprises a guide arm coupled to the hub filler and the guide arm motor coupled to the guide arm.

Thus, Ohshita totally fails to teach the guide arm and the guide arm motor coupled with the guide arm that act as a means for preventing the detachment of the end of the tape from the hub filler during a tape unloading operation. In fact, the Examiner unwittingly admits that the dragging of Ohshita is not accomplished by the guide arm and the guide arm motor. The Examiner asserts that the controllable drag is met by Ohshita by simply activating and non-activating the tape drive mechanism when the cartridge 1 in the machine reel 4 reels the tape 2, creating a tension and a drag in a controlled manner by activating and non-activating. This is not the guide arm or the guide arm motor providing a drag as required by claims 1-2.

For all of the above reasons, the rejections of Claims 1-2 under 35 U.S.C. § 102(b) as being anticipated by Ohshita has not been established by the Examiner.

The Examiner has failed to establish a case of obviousness under 35 U.S.C. § 103(a) based upon Ohshita and Rueger

Claims 3-9 and 11-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohshita and Rueger.

The Rueger Reference

The Rueger reference describes a pantocam web threading apparatus comprising a drive motor 20 at the tape cartridge, and a motor 71 that is a driving motor for the take-up reel 28. Careful consideration must be made of the passage cited by the Examiner, at column 7, lines 12-20. This states in full that "In the reverse rotation either the reverse rotation of the drive motor 20 or both the reverse rotation of the motor 20 and the reverse rotation of the shaft 56 by the motor 71 causes the pantocam mechanism 44 to travel the reverse direction back to the cartridge 12. The magnetic tape 16 pulls the leader block 18 from the slot 38 of the hub 29 and the follower linkage 52 either is pulled along or is driven by the shaft 56 to reverse the direction along the circumvoluted paths 48 and 50."

Hence, in the description of Rueger, either the motor 20 at the supply reel is driven by itself to pull the tape back into the cartridge, with no action specified for the motor 71 at the take-up reel, or both of the motors 20 and 71 are driven in a reverse rotational direction. Hence, neither of these situations describes the motor being employed to provide a controllable drag on the tape, as required by the present invention. The use of two motors in a tape drive operation in the manner of Rueger has already been described in the present application, at page 3. As it states there, during the unloading operation of the tape drive mechanism in conventional tape drive loading mechanisms, the motor coupled to the tape cartridge and the guide arm motor must act cooperatively in order to maintain adequate tension in the tape that is attached to the hub filler. Otherwise, if the tape is not under adequate tension, there is a risk that the end of the tape will detach from the hub filler prior to the end of the tape being retracted into the cartridge. The motor coupled to the tape cartridge and the guide arm motor are separately calibrated. Over time there is the possibility that one of the motors will run faster or slower than intended or originally calibrated. When this occurs, the tension in the tape may be decreased and result in the detachment of the end of the tape from the hub filler. Rueger simply describes a conventional tape loading mechanism with respect to the drive motors in which both of the motors are driven in the reverse rotational direction. In such a situation, there is the danger that the motors will be improperly calibrated over time, resulting in the problems described in the present application. In the other described situation in which both motors are rotated in the reverse direction, the second motor does not provide a controllable drag as required by the present invention. In the other described situation in which only the drive motor 20 is rotated, there is no description that the motor 71 provides a controllable drag. For the Examiner to infer otherwise is merely speculation without support in the specification of Rueger.

As will be demonstrated, each of the claims 3-9 and 11-20 patentably define over the

combination of Ohshita and Rueger.

In claim 3, the guide arm and the guide arm motor are arranged to provide drag on the tape being unloaded from the tape drive mechanism. The Examiner has not established that the guide arm motor and the guide arm provide the drag on the tape being unloaded from the tape drive mechanism. There is no indication whatsoever that the guide arm motor in Rueger provides any drag whatsoever on the tape being unloaded. In one circumstance, the guide arm motor is actually driving the linkage and the tape in the reverse rotational direction. In the other situation, the guide arm motor 71 is not mentioned at all, so that the reverse rotation of the drive motor 20 provides the only force described.

Claim 5 of the invention recites that the guide arm motor is under control of the controller and is arranged to provide tension on the tape by electrical induction within the guide arm motor. Rueger makes no mention of such a controller that provides tension in the tape by electrical induction within the guide arm motor. The Examiner has not provided the factual evidence that a guide arm motor is used to provide tension on the tape at all, much less by electrical induction. The Examiner has failed to provide the underlying basis that a guide arm motor is applying tension during an unloading operation.

Claim 6 describes that the electrical induction, frictional resistance of the hub filler and frictional resistance of the guide arm applies force to the hub filler in an opposite direction toward the direction of the hub filler is traveling in the unloading operation. Again, there is no description whatsoever in Rueger of such forces. The Examiner has failed to establish that it would be obvious to apply all of the claimed forces. No motivation in the prior art is identified as suggesting this particular arrangement to one of ordinary skill in the art.

Claim 7 of the invention describes that the guide arm motor is arranged to provide tension by magnetic resistance within the guide arm motor. The Examiner has not provided any description or disclosure whatsoever that would suggest to one of ordinary skill in the art that any tension applied to

the tape is provided by magnetic resistance within the guide arm motor. Rueger is completely silent on this point, and the Examiner has not provided any suggestions in the prior art to overcome this deficiency.

Claim 8 provides that the magnetic resistance of the guide arm motor, frictional resistance of the guide arm motor, frictional resistance of the hub filler, and frictional resistance of the guide arm apply force to the hub filler in opposite direction to a hub if the hub filler is traveling in the unloading operation. The Examiner has not established that the guide arm motor in Rueger provides tension by magnetic resistance within the guide arm motor. Therefore, Claim 8, which describes the direction of the force, as well as describing the frictional resistances provided by the guide arm motor and the hub filler and guide arm, cannot be said to be suggested by Rueger. The Examiner has provided no factual basis upon which to base an opinion that one of ordinary skill in the art would recognize the specifically claimed features to be present or suggested by Rueger.

Claim 9 is an independent claim that describes the tape drive mechanism in which the guide arm and the guide arm motor are arranged to controllably drag on a tape and thereby prevent detachment of an end of the tape from the hub filler during movement of the hub filler along the guide rail during an unloading operation. As described earlier, the combination of Ohshita and Rueger provide no such arrangement to controllably drag on a tape and prevent detachment of an end of the tape from a hub filler during movement of the hub filler along the guide rail during an unloading operation. As described earlier, the motor 71 of Rueger is only described as acting in a reverse rotation along with the reverse rotation of the motor 20 during the unloading operation. (In another embodiment, the motor 71 does not act at all, with the reverse rotation of the drive motor 20 being the only driving force.) Hence, in the only situation in which the motor 71 is described as operating, the motor 71 rotates in a reverse rotational direction and therefore does not provide a drag on the tape

being unloaded from the tape drive mechanism in Rueger . Instead, Rueger merely acts as a conventional tape drive mechanism in this respect, as described in the present application.

Claim 11 of the present invention describes the tape drive mechanism wherein the guide arm and the guide arm motor are arranged to be dragged by the tape being unloaded from the tape drive mechanism. There is no disclosure in Rueger that the guide arm motor is dragged by the tape being unloaded from the tape drive mechanism. Instead, as described above, the motor 71 acts to drive in a reverse rotational direction, or is not active whatsoever and no mention of the drag on the guide arm motor is mentioned by Rueger.

Claim 12 of the present application requires that the guide arm motor is under control of a controller arranged to provide tension by stimulated electrical induction within the guide arm motor. The Examiner has failed to establish that tension is provided by a guide arm motor, as discussed above. The additional limitation that tension is provided by stimulated electrical induction within the guide arm motor is therefore further not suggested by Rueger.

Claim 13 describes that the electrical induction, frictional resistance of the hub filler, and frictional resistance of the guide arm applies torque to the hub filler in the opposite direction to a direction that the hub filler is traveling in the unloading operation. For similar reasons, the Examiner is not shown how Rueger suggested the application of tension by electrical induction within the guide arm motor, much less the direction of the tension being provided as recited in Claim 13.

Claim 14 of the application recites that the guide arm motor is arranged to provide tension by magnetic resistance within the guide arm motor. The Examiner has not established, as discussed earlier, that the motor of the take-up reel of Rueger provides tension during the unloading operation. Therefore, the Examiner has not established that the guide arm motor provides tension by magnetic resistance. This is a further level of detail that should not even be reached, since the Examiner has not

even established that Rueger suggests a guide arm motor that provides tension to the tape during an unloading operation.

Claim 15 recites that the magnetic resistance of the guide arm motor, frictional resistance of the guide arm motor, frictional resistance of the hub filler, and frictional resistance of the guide arm apply force to the hub filler in an opposite direction that the hub filler is traveling in the unloading operation. For similar reasons as with respect to Claim 14, the underlying basis for the assertion that Rueger and Ohshita suggest to one of ordinary skill in the art the limitation of Claim 15 is lacking. Therefore, Claim 15, reciting the details of the magnetic resistance of the guide arm motor, and frictional resistances of the guide arm motor, hub filler and guide arm applying force to the hub filler and the direction of that force, cannot be shown or suggested by the combination of Rueger and Ohshita.

Claim 16 is an independent claim reciting a method of preventing detachment of an end of tape from a hub filler during movement of the hub filler along a guide rail during an unloading operation. This method comprises the steps of driving an end of a tape with a tape cartridge motor in a direction away from a take-up reel, and controllably applying tension to the end of the tape in a direction toward the take-up reel. As discussed above, Rueger fails to supply the deficiency noted with respect to Ohshita regarding the controllable application of tension to the end of the tape in a direction toward the take-up reel. Instead, Rueger merely describes the reverse rotation of both motors 20 and 71, or only the reverse rotation of the drive motor 20. There is no mention whatsoever of the controllable application of tension to the end of the tape in a direction toward the take-up reel. Even if the Examiner were to attempt to cobble together an argument that the application of tension is inherent, as appears in previous Office Actions, it is quite apparent that the applied references fail to disclose the limitation of <u>controllably</u> applying of tension to the end of the tape in the direction toward the take-up reel. The rejection of Claim 16 under 35 U.S.C. § 103(a) for obviousness must therefore fail.

Claim 17 requires that the step of applying tension comprises that further steps of providing tension to a guide arm coupled to the hub filler, and providing tension to a guide arm motor coupled to the guide arm. Again, the Examiner has failed to establish that the motor corresponding to the guide arm motor in Rueger provides tension. Nor has the Examiner established that the guide arm coupled to the hub filler provides tension. Therefore, the Examiner has not discharged the initial burden of providing a *prima facie* case of obviousness of claim 17 based upon the combination of Ohshita and Rueger.

Claim 18 is a method claim that recites the step of providing tension through a guide arm motor comprising the further step of providing tension through electrical induction within the guide arm motor. The Examiner has not established that it would be obvious to provide tension through a guide arm motor as an underlying basis. Therefore, the Examiner has not established that such tension can be provided or suggested it be provided through electrical induction within the guide arm motor.

Claim 19 recites the step of providing tension through a guide arm motor and comprises the further step of providing tension in this guide arm motor through magnetic resistance within the guide arm motor. For analogous reasoning as in Claim 18, the Examiner has not established that a *prima facie* case of obviousness exists in providing tension in the guide arm motor through magnetic resistance based on Rueger and Ohshita.

Claim 20 recites that the step for providing tension through a guide arm comprises the further step of providing tension in the guide arm through frictional resistance of the guide arm. The Examiner has not established that the controllable application of tension provided through frictional resistance of a guide arm would be recognized by one of ordinary skill in the art based upon Rueger and Ohshita. As such, the Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103 of Claim 20 based upon Ohshita and Rueger.

IX. CONCLUSION

Based upon the arguments submitted supra, Appellant submit that the Examiner has failed to establish a *prima facie* basis to deny patentability to any of the claims under 35 U.S.C. § 102 or § 103. Appellants therefore submit that the Examiner's rejection of Claims 1-2 under 35 U.S.C. § 102 for lack of novelty predicated upon Ohshita, and the Examiner's rejection of Claims 3-9 and 11-20 under 35 U.S.C. § 103(a) for obviousness predicated upon Ohshita and Rueger, are not factually or legally viable.

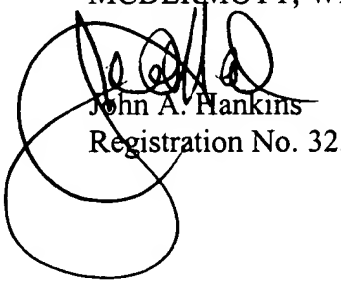
X. PRAYER FOR RELIEF

Based upon the previously submitted and advanced arguments, Appellants submit that each of the Examiner's rejections under 35 U.S.C. § 102 and § 103 is not factually or legally viable. Appellants, therefore, respectfully solicit the Honorable Board to reverse each of the Examiner's rejections.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT, WILL & EMERY



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X. APPENDIX

1. (Original) A tape drive mechanism comprising:

a hub filler coupled to a guide rail; and

means for preventing detachment of an end of tape from the hub filler during a tape unloading operation.

2. (Original) The tape drive mechanism of claim 1, wherein the means for preventing detachment comprises:

a guide arm coupled to the hub filler; and

a guide arm motor coupled to the guide arm.

3. (Original) The tape drive mechanism of claim 2, wherein:

the guide arm and the guide arm motor are arranged to provide drag on a tape being unloaded from the tape drive mechanism.

4. (Previously presented) The tape drive mechanism of the claim 3, wherein:

the guide arm and the guide arm motor are arranged to be dragged by the tape being unloaded from the tape drive mechanism.

5. (Previously presented) The tape drive mechanism of claim 4, wherein:

the guide arm motor under control of a controller is arranged to provide tension on the tape by electrical induction within the guide arm motor.

6. (Original) The tape drive mechanism of claim 5, wherein the electrical induction, frictional resistance of the hub filler, and frictional resistance of the guide arm applies force to the hub filler in an opposite direction to a direction that the hub filler is traveling in the unloading operation.

7. (Original) The tape drive mechanism of claim 4, wherein the guide arm motor is arranged to

provide tension by magnetic resistance within the guide arm motor.

8. (Original) The tape drive mechanism of claim 7, wherein the magnetic resistance of the guide arm motor, frictional resistance of the guide arm motor, frictional resistance of the hub filler, and frictional resistance of the guide arm apply force to the hub filler in an opposite direction to a direction that the hub filler is traveling in the unloading operation.

9. (Previously presented) A tape drive mechanism comprising:

a hub filler coupled to a guide rail;

a guide arm coupled to the hub filler; and

a guide arm motor coupled to the guide arm, wherein the guide arm and the guide arm motor are arranged to controllably drag on a tape and thereby prevent detachment of an end of the tape from the hub filler during movement of the hub filler along the guide rail during an unloading operation.

10. (Cancelled)

11. (Previously presented) The tape drive mechanism of claim 9 wherein the guide arm and the guide arm motor are arranged to be dragged by the tape being unloaded from the tape drive mechanism.

12. (Previously presented) The tape drive mechanism of claim 9 wherein the guide arm motor under control of a controller is arranged to provide tension by stimulated electrical induction within the guide arm motor.

13. (Previously presented) The tape drive mechanism of claim 12, wherein the electrical induction, frictional resistance of the hub filler, and frictional resistance of the guide arm applies torque to the hub filler in the opposite direction to a direction that the hub filler is traveling in the unloading operation.

14. (Previously presented) The tape drive mechanism of claim 11, wherein the guide arm motor

is arranged to provide tension by magnetic resistance within the guide arm motor.

15. (Original) The tape drive mechanism of claim 14, wherein the magnetic resistance of the guide arm motor, frictional resistance of the guide arm motor, frictional resistance of the hub filler, and frictional resistance of the guide arm apply force to the hub filler in an opposite direction to a direction that the hub filler is traveling in the unloading operation.

16. (Previously presented) A method of preventing detachment of an end of tape from a hub filler during movement of the hub filler along a guide rail during an unloading operation, comprising the steps of:

driving an end of tape with a tape cartridge motor in a direction away from a take-up reel; and controllably applying tension to the end of the tape in a direction toward the take-up reel.

17. (Previously presented) The method of claim 16, wherein:

the step of applying tension comprises the further steps of:

providing tension through a guide arm coupled to the hub filler; and

providing tension through a guide arm motor coupled to the guide arm.

18. (Original) The method of claim 17, wherein the step of providing tension through a guide arm motor comprises the further step of providing tension in the guide arm motor through electrical induction within the guide arm motor.

19. (Original) The method of claim 17, wherein the step of providing tension through a guide arm motor comprises the further step of providing tension in the guide arm motor through magnetic resistance within the guide arm motor.

20. (Original) The method of claim 17, wherein the step of providing tension through a guide arm comprises the further step of providing tension in the guide arm through frictional resistance of the

guide arm.